REMARKS

The Office Action dated December 7, 2005, has been received and carefully noted. The amendments made herein and the following remarks are submitted as a full and complete response thereto.

Claims 1, 2, 7 and 8 have been canceled and claims 3, 5, 6, 9, 11-13 and 15 have been amended. Applicants submit that the amendments made herein are fully supported in the specification and the drawings as originally filed, and therefore no new matter has been added. Accordingly, claims 3-6 and 9-15 are pending in the present application and are respectfully submitted for consideration.

Objection to the Specification

The Specification was objected to for the alleged informalities in paragraph [0015]. The Office Action stated that the phrase "When the voltage applied to the input terminal 1 is lower than a threshold level V_S, the potential difference across the resistor R2 is so low that the transistor Q1 is kept on and the transistor Q2 is kept off" is misleading because voltage Vs) is the input signal, not the threshold. The threshold is a "predetermined value" of (Vs) that makes diode (Q3) conductive and a low voltage is applied to the gate of transistor (Q1)." The Office Action further stated that "According to Figure 1 of the present application, the voltage that is applied to the gate of transistor (Q2) is lower than the voltage applied to the gate of transistor (Q1), thus when transistor (Q1 is turned **on**, transistor (Q2 is turned **on** also at the same time."

The Applicants respectfully disagree and submit that, in one example of the present invention, when the diode Q3 is non-conductive, the voltage division circuit does not operate. Moreover, when the input voltage is so low that the Q3 remains non-

conductive, none of the transistors Q1, Q2, Q4, Q5 and Q6 turn on, for example. It is submitted that for a collector current to flow through the transistor Q1, the transistor Q4 or Q6 needs to be ON, but the input voltage is too low to make either of them ON; likewise, for a collector current to flow through the transistor Q2, the transistor Q5 needs to be ON, but the input voltage is too low to make it ON. That is, for instance, when the input voltage is so low that the Q3 remains non-conductive, the voltage detection circuit as a whole does not operate.

It is erroneous to discuss the voltage detection circuit in a state in which it is not operating as a whole. It is essentially stating that when discussing a switching regulator that converts an input voltage to output a predetermined voltage, that the "predetermined voltage is indefinite" because the predetermined voltage is not outputted when the switching regulator is fed with so low a voltage that the switching regulator as a whole does not operate.

Therefore, Applicants respectfully request withdrawal of the objection to the Specification.

Claim Objections

Claims 1 and 13 were objected to for informalities. The Office Action stated that the recitations "a fourth resistor" in claim 1 and "the serial circuit" in claim 13 lack antecedent basis. Resistors 1-3 were not recited. Claim 1 has been canceled, rendering the objection to this claim moot.

The Applicants submit that the "fourth resistor" as recited in the claims have been amended to be --first resistor--. Similarly, the "first resistor," the "second resistor," and

the "third resistor," have been amended to recite --second resistor--, --third resistor--, --first resistor--, respectively.

The Applicants respectfully submit that "the serial circuit" in amended claim 13 does have antecedent basis because, prior to "the serial circuit", there is a mention of "a serial circuit composed of a rectifying element and a second resistor. See Claim 13, lines 7 and 8.

Therefore, the Applicants respectfully request withdrawal of the objection to claim 13.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 1-12 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1, 2, 7 and 8 have been canceled, rendering the rejection to these claims moot.

As for independent claims 3, 9 and 13, since "when the input voltage is so low that the diode Q3 remains non-conductive," the voltage detection circuit as a whole does not operate, it is erroneous to discuss the operation of the voltage detection circuit as a whole as observed "when the input voltage is so low that the diode Q3 remains non-conductive."

Regarding claims 5, 11 and 15, for each of the expressions pointed out by the Office Action, there is a clear description of the calculation by which it is determined in the respective claims, i.e., claims 5, 11 and 15. These claims recite the contents of Equation (5) noted in the description of the exemplary embodiment, for instance.

The following phrase cited by the Office Action as underscored below is incorrectly cited: "a resistance of the resistor by the resistance of the resistor". This phrase was amended to recite "a resistance of the first resistor by the resistance of the first resistor" in the previous Response to the Office Action dated July 1, 2005.

Rejections Under 35 U.S.C. § 102 and Under 35 U.S.C. § 103

Claims 1, 6, 7, 9, 10 and 12-14 were rejected under 35 U.S.C. § 102(b) as being anticipated by the admitted prior art ("APA"). In addition, claims 2-4 and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the APA.

Claims 1, 2, 7 and 8 have been canceled, rendering the rejection to these claims moot. To the extent that the rejection still applies, the Applicants respectfully traverse.

The Applicants submit that APA fails to disclose or suggest each and every element recited in claims 3-6 and 9-15 of the present application. In particular, it is submitted that the amendments to the claims have made clear the distinction of the present invention over the voltage detection circuit of APA shown in Fig. 4 of the present application, and thus the present invention is NOT anticipated nor obvious from the voltage detection circuit of APA shown in Fig. 4 of the present application.

Therefore, the Applicants submit that APA fails to disclose each and every element recited in claims 3-6 and 9-15 of the present application, and are allowable.

Accordingly, the Applicants respectfully request withdrawal of the rejections.

Conclusion

In view of the above, the Applicants respectfully submit that each of claims 3-6 and 9-15 recites subject matter that is neither disclosed nor suggested in the cited prior art. The Applicants also submit that this subject matter is more than sufficient to render the

claims non-obvious to a person of ordinary skill in the art, and therefore, respectfully request that claims 3-6 and 9-15 be found allowable and that this application be passed to issue.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing docket number 103213-00076.**

Respectfully submitted,

Sam Huang
Attorney for Applicants
Registration No. 48,430

Customer No. 004372
ARENT FOX, PLLC
1050 Connecticut Avenue, N.W., Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

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